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Peritonitis

by

Benjamin F. Perkins

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Tennessee

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Peritonitis

This disease is very analagous to all other inflammations. Cullen places this malady in the first class Pyrexiae, and second order Phlegmasiae. It has been very little attended to by English writers until of late years. It is divided into acute and chronic; of these I shall speak only of the former. From the great danger of this disease, it is necessary for every practitioner to be acquainted with; but it requires some discrimination to distinguish this from other inflammations of the abdominal viscera; Inflammation of the different tissues are very often confounded together without regard to their anatomical, physiological, and pathological peculiarities. Practitioners are very apt to blend peritoneal inflammation with that of the organs which it covers, and to speak of seperate affections of the stomach, intestines, and uterus, under the designations of gastritis, enteritis, and hysteritis, as if the infla=

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=mmation attacked the whole of the tissues composing those viscera, at one and the same time? It is certain that almost every acute inflamation of the organs above mentioned, begins in a single tissue of their structure, with corre= =sponding symptoms, and spreads to other tissues with more or less rapidity, according to the vi= =olence of the malady, and the mode of trea= =tment, and is accompanied by a train of phenom= =ena indicative of the structures successively invaded. Many cases improperly called gastr= =itis and enteritis, are pure peritonitis in the beginning, and the disease takes its name from the organ over which the inflamed portion of the peritoneum is spread; though, in such instances we never find the inflammation bounded by the limits of a single viscus, but ranging over a greater or less proportion of the peritoneal tunic. It is a fact very well known that the pleura is frequently inflamed when

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the substance of the lungs escapes; and it is precisely so with the peritoneum and inclosed viscus excepting that in inflammations of the latter there is more danger than in those of the former.

There is a very close analogy between pleuritis and peritonitis. They begin like all other acute diseases with chilliness, succeeded by heat, and fever. They put on the peculiar character of serous inflammations, shewn by acute pain, ranging or fixed, accompanied by a distressing sence of internal heat. As cough with a discharge sometimes takes place in pleurisy, so nausea and vomiting are common attendants on peritonitis. As pleurisy is under atmospheric influence, and sometimes appears to spread epidemically, so does peritoneal inflammation. In pleuritic inflammation, coagulable lymph is thrown out, and adhesions are formed; in peritoneal inflammation, the intestines are often glued together by the same substance.

After what has been said on this subject, I shall endeavour to proceed systematically in discribing the phenomena of this disease in the order in which they come.

The predisposing causes of peritonitis are involved in darkness, and may depend on some peculiar disposition.

Among these may be ranged cold seasons of the year, a too free use of spirituous liquors, damp dwelling, &c. &c.

The exciting causes are various; some are mechanical, some chemical. Thus falls or blows on the abdomen, compression, or any contusion of that part may produce irritation, from which we may have peritoneal inflamm= =ation. Irritation also frequently results from inte= =rnal mechanical pressure or friction, as extra uterine conception, the gravid uterus &c. —

Broussais considers violent contractions of the abdominal muscles in vomiting, and the great

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determination of blood to the centre in the cold stages of intermittents as causes of peritoneal inflammation.

Among the chemical internal irritations, may be placed all extravasations that are not quickly absorbed, as blood bile urine faeces, and sometimes the morbid serous secretion of the tissue itself.

But the great causes are to be looked for in the action of cold on the body the neglecting to change wet and damp clothes, drinking cold drinks when in full perspiration, and the interruption of certain functions of the system as sudden suppression of perspiration, of the lochia, and catamenial discharge.

This disease is said to prevail as an epidemic, Broussais gives an account of its prevailing as such in the French armies, while in Germany, Holland and Italy and states that it was apparently contagious. This is doubted. When it arises from the

above causes it is considered as idiopathic. It sometimes arises from the extension of inflammation from other parts and is then symptomatic. According to the constitution of the patient and the violence of the cause we have acute or chronic peritonitis. These forms are not very distinguishable, when they are passing to or from one another, but at all other times, they are very easily discriminated, and are accompanied by marked peculiarities, and features.

Acute peritonitis generally commences with chills, often amounting to rigors; it not unfrequently happens, that the chilly stage continues for two three, four and even five days, before reaction takes place at other times, however the cold stage is of short duration, and heat succeeds, with more or less tumency, with headache, pain in the abdomen gastric irritability with vomiting, frequent, hard concentrated pulse, beating from one hundred to a hundred and thirty in the minute. The face

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usually pale, and often covered with cold clam=
=my sweat, and the abdominal pains produce
certain muscular contractions of the face; which
give the countenance a peculiar aspect, character
istic of this disease.

To the foregoing symptoms may be added
sleeplessness thirst, furred and white tongue,
though sometimes red and polished, abdomen
very sensible when compressed, prominent and
hard, with acute lancinating pain as if some
sharp instrument pierced it. Patients are generally
costive, though there are cases on record of their
being in an opposite state. In a short time all
the symptoms increase in violence, the pain becomes
much greater, the pulse is now between one hun=
=dred and forty and fifty, in a minute, and
the patient lies on his back with his knees
drawn up, to keep the weight of the bedclothes
off, and to relax the abdominal muscles, so that
the weight of the bowels may rest on the spine

If the disease be not now arrested we have still more alarming symptoms; There is great prostration of strength, a vomiting of dark matter, resembling that in yellow fever, a hard, and tumid abdomen, pulse small, irritable and quick, haggard countenance, skin cold, incrusted tongue as in low fever, and gangrene is frequently the result in a short time.

This disease is known from all others inflammations of the abdominal viscera, by the pain being more permanent, by its being increased on pressure, and by the countenance of the patient, when pressure is made on the abdomen there is a contraction of the lips, and expression of pain, as if some sharp instrument pierced him.

The only diseases with which peritonitis is likely to be confounded, are gastritis, enteritis and cholic, These affections are so closely allied, that it requires nice discrimination to tell one from the other. In peritonitis the patient lies on his back continually with his knees

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drawn up, there is no desire to go to stool, the abdomen is tumid. the pain is more steady than in cholic, and more pungent and lancinating than in enteritis, and the patient complaining of great pain, and tenderness on pressure, before any tension has taken place in the abdomen.

The first symptom by which we may pronounce the recovery of the patient is when we see him stretch down his legs or sit up of his own accord. The symptoms to the reverse are when the patient continues on his back, and the pain on pressure is equally great, and when we see the symptoms indicative of gangrene present themselves the prognosis is unfavourable to the patient. When we see him sit up we may know that the peritoneum, is not so much inflamed but that it can bear the presence of the bowells in contact with it. Dr Pembertton states, that he never knew it to fail, when the patient was confined to his back

with this disease, if he ever got able to sit up of his own accord, but he recovered, and if the tension of the abdomen continues to increase to the sixth, seventh, or eighth day; and if proper means have not been taken to arrest the disease before the expiration of this time on one of these days, the patient most commonly expires.

In general according to the duration of the disease and its degree of violence, the traces of inflammation, on examination after death, are more strongly marked; sometimes the redness is scarcely, or not at all to be seen, owing to the reflux of blood from the capillaries, in articulo mortis.

The peritoneum has been found partially and totally inflamed, without any affection of the adjoining organs. In numerous instances the peritoneal coat has been found gangrenous, when the muscular and mucous tissues of the stomach, intestines, and other viscera, were found perfectly sound. But there are instances, where the peritoneum

was much inflamed in contact with the intestines, and not only the muscular coat of the intestines were inflamed, but even the villous membrane. The peritoneum appears less connected with the abdominal muscles, than with the intestinal canal, so that the inflammation passes less readily from the peritoneum to the former, than to the latter part; when a portion of the inflamed peritoneum is separated from the abdominal muscles there is commonly no appearance whatever of the inflammation having spread into the muscles. There is discovered in the cavity of the abdomen, more or less of a fluid, often whey coloured, in which shreds of coagulable lymph are seen floating. —

More or less of serous and purulent fluid is always found in the abdominal cavity on dissection. Broussais found red clots, sometimes thin at other times thick, spread in form of membrane over the peritoneum which was thickened and

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In most cases, where acute peritonitis has been cured and the patient soon after died of some other disease, adhesions were found similar to those occasioned by pleurisy.

Acute peritonitis may terminate by resolution, suppuration or effusion, gangrene, and chronic peritonitis. The termination by resolution generally takes place between the fifth and tenth day, Broussais says sometimes the fifteenth or twentieth; it is known by cessation of fever, pain, and other inflammatory symptoms, by the healthy action in contiguous organs, a power to turn on either side, free evacuations from the bowels, kidneys, and skin, a disappearance of nausea, and vomiting and the return of refreshing sleep. In fatal cases it terminates very frequently in suppuration and effusion, and it is difficult to tell when suppuration or effusion takes place. There is generally an abatement of the abdominal

pain, with a sense of weight and pressure irregular chills, a softness in the pulse, paleness of the countenance; coldness of the extremities. Death generally succeeds. In peritoneal suppuration we have no ulceration in the membrane, the purulent matter appears to be thrown out by a kind of exhalation or secretion as the ordinary serous fluids. The colour and consistence of the purulent matter are very various. Shreds of membrane and albuminous matter are seen floating in it. A serous fluid is always secreted on the internal surface of the peritoneum in health, but when inflamed the gorged state of its vessels will sometimes cause a sanguineous effusion, instances of which are related by Burrows. But more commonly in peritoneal inflammation there is a preternatural serous secretion, of various colours and consistences which accumulating in the abdomen increases the irritation and aggravates the inflammation. Of all inflammations of serous membranes, peritoneitis is when violent most dishon-

to terminate in gangrene. The phenomena indicative of this termination are obvious. A sudden cessation of abdominal pain, smallness of the pulse, which becomes concentrated and intermitting, and prostration of strength announce the approach of death from gangrene. When acute peritonitis continues longer than the tenth or fifteenth day it is called chronic, but this last disease is not always preceded by the acute.—

Great discordance of opinion exists among distinguished writers respecting the nature and treatment of peritonitis. Some allege that the moral use of opium is the only means of effecting a cure, while others utterly deny the utility of opium and urge the use of the lancet to its full extent. There are many of the most eminent practitioners on opposite sides of the controversy. The London school particularly that of Sir George Burdoce and his disciples maintain that opium is the proper remedy in this disease." Dr Pemberton places his

confidence in bloodletting to its full extent and at the same time recommends that the bowels should be acted upon with mild remedies. Bronsais blames too much confidence in mild remedies, such as emollient fomentations being diuretics and anodynes and thinks it improper to use purgatives. He attributes the use of venesection anodynes when the force of reaction is a little abated. Armstrong who thinks there is no difference between intermittent fever and this disease commences by bleeding and purging copiously and topical bloodletting with leeches.

Notwithstanding the great difference of opinion we must not forget that this is one of the most dangerous cases that we have to contend with. It is extremely inflammatory and rapid in its progress, and if not speedily arrested will prove fatal in a short time. The measures pursued in the Glenmasca of this country are very decisive in their effects. The general measures are general and local bloodletting, the warm bath fomentations and blisters with

diaphoretics into which opium enters largely, such as the pulvis Doveri. We use general bleeding to lessen the force of the heart and the fullness of the general vascular system, we use topical bleeding to relieve the congestion of the particular part affected of their overflow of blood and irritation. The warm bath and diaphoretics seem to produce a centrifugal effect carrying the disease to the surface of the body. We use blisters to produce counter irritation. Were we called to a patient labouring under the foregoing symptoms our first object would be to retract a large quantity of blood as quickly as possible and from a large orifice, We should be directed as to the quantity, entirely by the degree of pain expressed by the patient, particularly on pressure. It ought commonly to be carried to the extent of relieving local pain, or inducing syncope, or a strong tendency to it. The second means is local bloodletting by leeches or cups, applied over the abdomen, and it is

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necessary to apply leeches sometimes to the hae=
=morrhoidal or vaginal vessels, when a female,
as the menses is generally suppressed in this disease.
Immediately after the general and local detrac=
=tion of blood has been used to a proper extent,
and we find it not to arrest the disease, we
commence with the warm bath or vapour bath
which is equally as good this is one among the
best remedies in peritonitis as has been witnessed
by professor Chickman. The operation of this
should be aided by the internal use of
diaphoretics into which opium enters largely;
such as the pulvis Doveri. The bowels are to
be kept open all this time. If we gain no
relief by these means we must employ some
more powerful purgative, such as will excite
the mucous membrane of the intestinal
canal to copious secretion and complete evacu
=ation of its contents. Here we differ from some
distinguished practitioners, but we are supported

by as good. We employ purgatives to assist in lessening the whole mass of circulating fluids and reduce the general action of the heart and vascular system.

"In peritonitis provided the mucous tissues are not inflamed, purgative medicines excite the secreting vessels, not only of the whole internal surface of the intestines themselves, but of the glandular organs whose excretory ducts open into the primae viae, and thus powerfully deplete locally, the vascular system of the abdominal viscera."

The success which has attended Dr. Armstrong in the administration of large doses of calomel in puerperal peritonitis is a proof of the power of purgatives in this disease. After we have subdued the violence of the inflamation by bleeding and purgeing with the aid of the warm bath, we apply a blister large enough to

over the whole abdomen.

There is great difference of opinion respecting the use of the oil of turpentine, Drs Campbell & Mackintosh have agreed to discard it as not being useful in this disease I'd on the contrary think it to be a very good medicine in this disease. About the time we think the disease has a tendency to gangrene, we use the oil of turpentine in very large doses in order to make it have the desired effect. The turpentine acts not only as a cathartic, but as a very powerful excitant of the mucous surface of the intestines, thus inviting the contents of the engorged capillaries of the peritoneum to this mucous membrane, where, by increase of secretion it is expelled from the alimentary canal. It appears to act as a blister would externally.

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